What is claimed is:

1. A printed circuit board comprising:

a signal layer comprising traces to communicate signals not associated with regulated supply voltages; and

a supply voltage plane embedded in the signal layer to supply power to multiple supply voltage pins of a component mounted to the printed circuit board.

2. The printed circuit of claim 1, further comprising:

a supply voltage plane layer separate from the signal layer.

3. The printed circuit board of claim 1, wherein the supply voltage plane has an outer boundary established by the supply voltage pins of the component.

4. The printed circuit board of claim 1, wherein the supply voltage plane lies substantially within a region located directly below the component, the component being mounted on top of the signal layer.

5. The printed circuit board of claim 1, wherein the supply voltage plane has an outer boundary that generally follows a projection of a main body of the component onto the signal layer.

6. The printed circuit board of claim 1, further comprising:

a supply voltage plane layer different from the signal layer, the supply voltage plane layer comprising an embedded ground plane to provide ground connections for the signal layer.

7. The printed circuit board of claim 6, wherein the ground connections are associated with electrical devices connected to the component.

8. The printed circuit board of claim 6, wherein the ground plane has an outer boundary established by the ground connections.

9. The printed circuit board of claim 6, wherein the ground plane lies substantially within a region located directly below the component, the component being mounted on top of the signal layer.

10. The printed circuit board of claim 6, wherein the ground plane is significantly larger than the supply voltage plane.

11. The printed circuit board of claim 6, wherein the ground plane has an outer boundary that circumscribes a projection of the supply voltage plane onto the signal layer.

12. The printed circuit board of claim 6, further comprising:

a core layer,

wherein the signal layer and the supply voltage plane layer are located on the same side of the core layer.

13. The printed circuit board of claim 6, wherein the ground plane is arranged to reduce an inductance.

14. The printed circuit board of claim 1, wherein the supply voltage plane is arranged to reduce an inductance.

15. A printed circuit board comprising:

a supply voltage plane layer to communicate a supply voltage; and

a ground plane embedded in the supply voltage plane layer to provide ground connections to multiple pins of a component mounted to the printed circuit board.

16. The printed circuit of claim 15, further comprising:

a ground plane layer separate from the supply voltage plane layer.

17. The printed circuit board of claim 15, wherein the ground plane lies substantially within a region located directly below the component, the component being mounted on top of the signal layer.

18. The printed circuit board of claim 15, wherein the ground connections are associated with electrical devices connected to the component.

19. The printed circuit board of claim 15, wherein the ground plane has an outer boundary established by the ground connections.

20. A method comprising:

for each high frequency component to be mounted on a printed circuit board, embedding an associated supply voltage plane in a signal layer of the printed board to provide power to the component, the signal layer being used to communicate high frequency signals associated with the high frequency component or components.

21. The method of claim 20, further comprising:

coupling the supply voltage plane or planes embedded in the signal layer to a supply voltage plane layer separate from the signal layer.

22. The method of claim 21, wherein the coupling comprises:

coupling an inductive element between at least one of the supply voltage plane or planes embedded in the signal layer and the supply voltage plane layer.

23. The method of claim 20, further comprising:

locating each supply voltage plane embedded in the signal layer underneath the associated component, the component or components being mounted on top of the signal layer.

24. The method of claim 20, further comprising:

for each supply voltage plane embedded in the signal layer, embedding an associated

ground plane in a supply voltage plane layer of the printed circuit board to provide ground connections for the component associated with said supply voltage plane embedded in the signal layer.

25. The method of claim 24, further comprising:

providing a core to support the signal layer and the supply voltage plane layer; and

locating the signal layer and the supply voltage plane layer on the same side of the core.

26. The method of claim 25, further comprising:

providing a ground plane layer on the opposite side of the core from said same side of the core; and

connecting the ground plane or planes embedded in the supply voltage plane layer to the ground plane layer.

27. A method comprising:

for each high frequency component to be mounted on a printed circuit board, embedding an associated ground plane in a supply voltage plane layer of the printed circuit board to provide ground connections for the component, the supply voltage plane layer being used to communicate a supply voltage to the high frequency component or components.

28. The method of claim 27, further comprising:

coupling the ground plane or planes embedded in the supply voltage plane layer to a ground plane layer separate from the supply voltage plane layer.

29. The method of claim 27, further comprising:

locating each ground plane embedded in the supply voltage plane layer underneath the associated component, the component or components being mounted above the supply voltage plane layer.